

# **Panasonic**

Colour Television    **TC-21L4Z**

## **Operating Instructions**

Please read these instructions completely before operating this set.

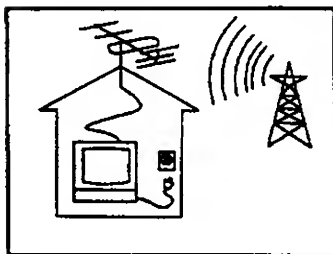
TQB4G0057

# Dear Panasonic Customer

Welcome to the Panasonic family of customers.  
We hope that you will have many years of enjoyment from your new colour television set.

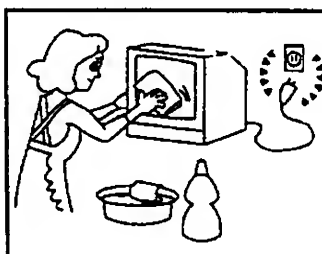
## Warning and Cautions

### Power Source and TV System

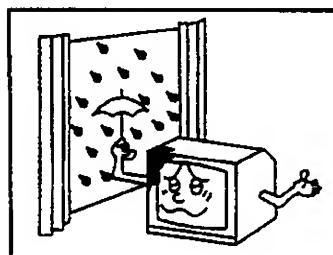


The TV set can be operated on AC 230V, 50Hz. It is designed exclusively for broadcast systems PAL B & G.

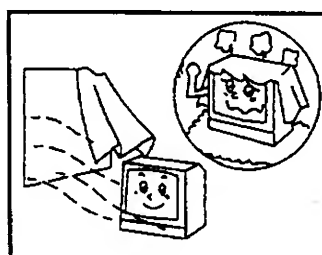
### Cabinet and Picture Tube Care



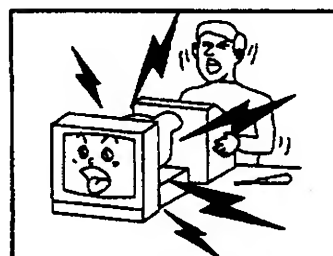
The cabinet and picture tube can be kept in good condition by simply wiping with a clean, soft cloth moistened with mild detergent and water. Do not use solutions containing benzol, petroleum or a chemical cloth. For safety, remove the plug from the wall outlet, when cleaning the TV.



To prevent damage which may result in fire or electrical shock, do not expose the TV set to rain or excessive moisture.

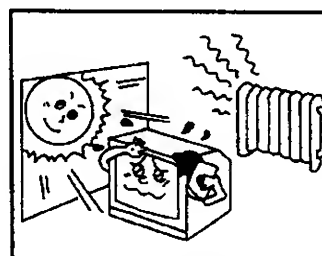


Adequate ventilation is essential to prevent failure of electrical components.

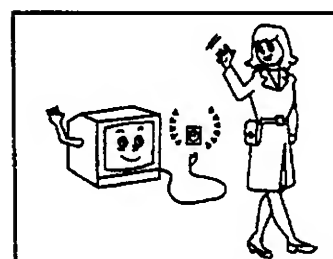


#### High Voltage :

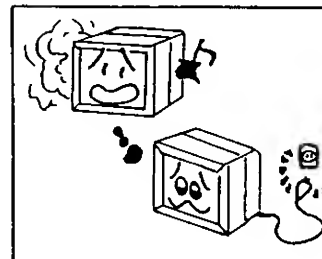
Do not remove the rear cover, as live parts are accessible when it is removed.



Avoid exposing the TV set to direct sunlight and other sources of heat.



Remove the plug from the wall outlet ( Power point ) when the TV set is not used for a prolonged period of time.



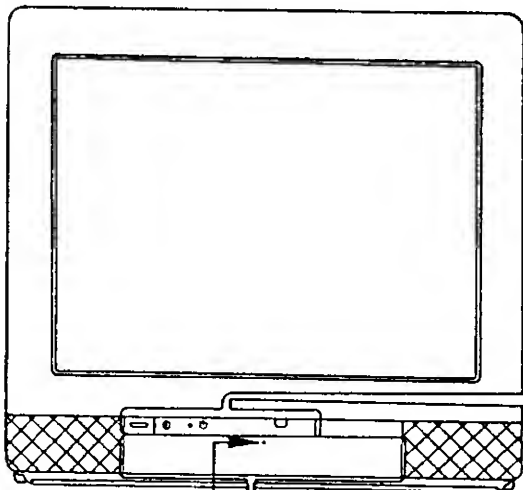
Do not use this set if abnormal operation occurs.  
EX: smoke, odd sounds or smells, turn the power switch off and disconnect the AC plug, if you notice any unusual operation.

## Contents

Location of Controls .....	2
How to Connect an External Antenna .....	3
General Operation .....	4-5
How to Tune in Your TV Set (Automatic Search) .....	6
How to Tune in Your TV Set (Manual Search) .....	7
Fine Tuning Operation .....	8
How to Skip Unused Channels .....	9
Remote Control .....	10
Remote Control Operation .....	11-12
Battery Installation and Replacement for Remote Control Transmitter .....	13
Connections (AV Input and TV Output Terminals) .....	14
Troubleshooting .....	15
Specifications .....	16

# Location of Controls

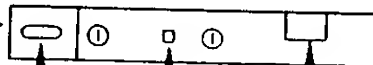
(Front)



Push here to open

**Note :** Operating instructions for the numbers ( 1 ) to ( 7 ) on this page are explained on page 4 ~ 5.

(Front)

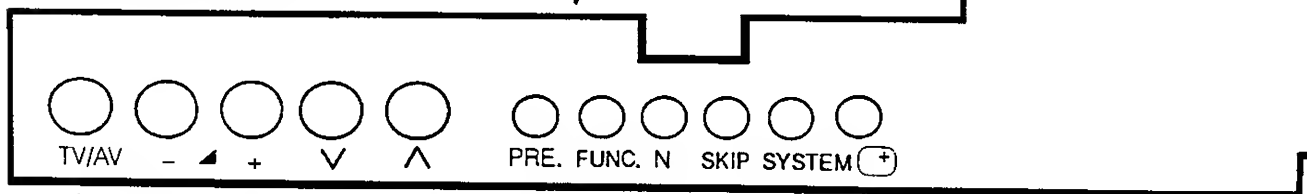


Power Switch

Stand-by Indicator

Remote Control Sensor

( Behind the door )



( 1 )

( 2 )

( 3 )

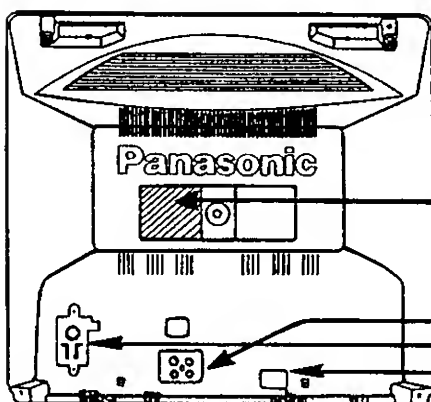
Preset button

( 4 ) ( 5 )

Skip Button

( 6 ) ( 7 )

(Rear)



Model Name Plate

Audio/Video Terminal

Aerial Terminal

Serial Number

## How to Connect an External Antenna

To obtain the best quality picture and sound, an external antenna, the correct cable (75 Ohm coaxial) and the correct terminating plug will be required.

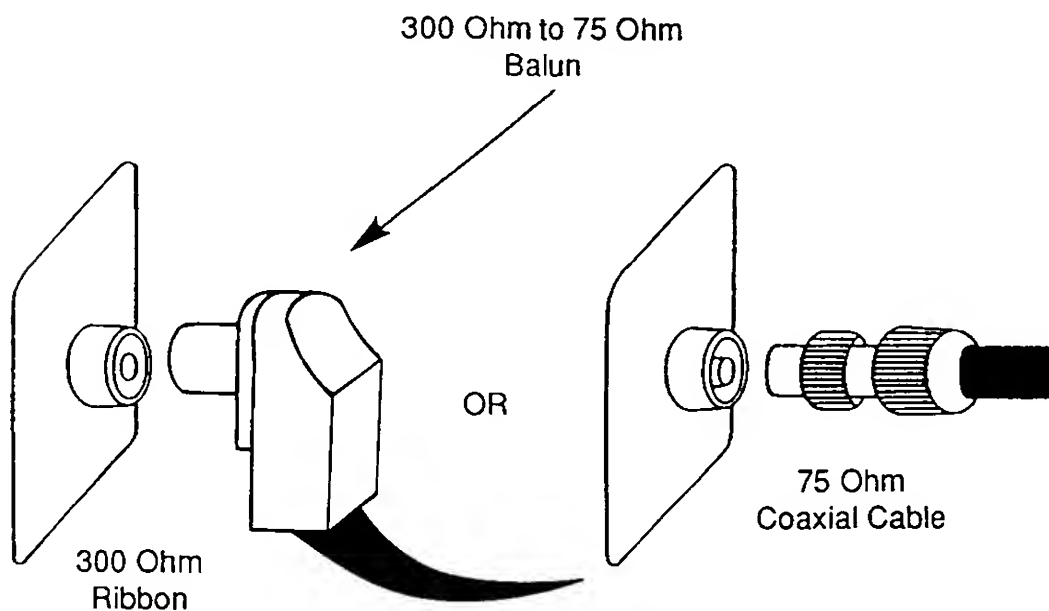
If a communal antenna system is used, you may require the correct connection cable and plugs between the wall antenna socket and your television receiver.

Your local Television Service Agent or Dealer may be able to assist you in obtaining the correct antenna system for your particular area and accessories required.

Any matters regarding antenna installation, upgrading of existing systems or accessories required, and the costs incurred, are the responsibility of the customer.

### Note:

If your existing antenna system uses 300 Ohm ribbon cable you will require a 300 Ohm to 75 Ohm Balun. See Below:



# General Operation

(Refer to the diagram on Page 2)

## ( 1 ) TV / AV Selection Button

TV Mode : To receive regular TV channel signals.

AV Mode : The Audio / Video input terminals are activated.

## ( 2 ) Volume Up " + " and Down " - " Buttons

Push the Volume Up " + " button to increase the sound level.

Push the Volume Down " - " button to decrease the sound level.

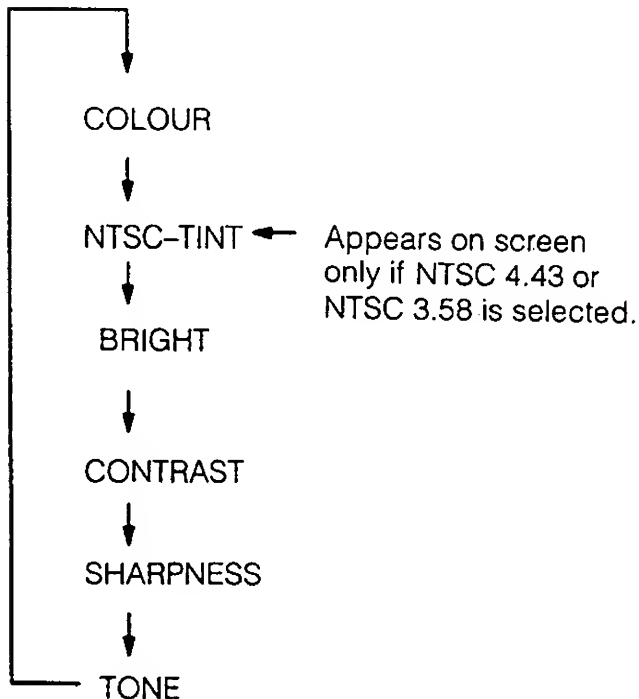
## ( 3 ) Channel Up and Down Buttons

Push the Channel Up " ^ " button to select a higher channel.

Push the Channel Down " v " button to select a lower channel.

## ( 4 ) Function Button

By pushing the Function button repeatedly, you change the on-screen display as follows:

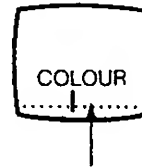


You can select the function you want to change.

e.g. After selecting the "COLOUR" function:



By using the Level Adjustment Up " + " or Down " - " buttons, the level of the selected function can be changed.



Push the " + " button to increase the level of the selected function.

Push the " - " button to decrease the level of the selected function.

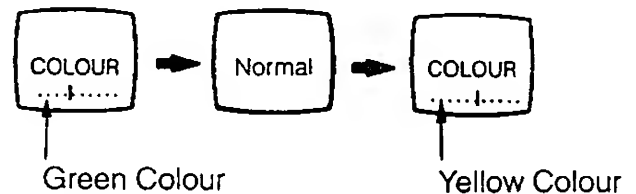
Level indication

Repeat the above steps for the remaining functions.

**Note:** For normal Volume Up / Down adjustment, please wait until the level indication disappears.

## ( 5 ) Normalization Button

This button is used in the function setting. When this button is pushed, all functions setting are normalized or reset to the factory preset level.



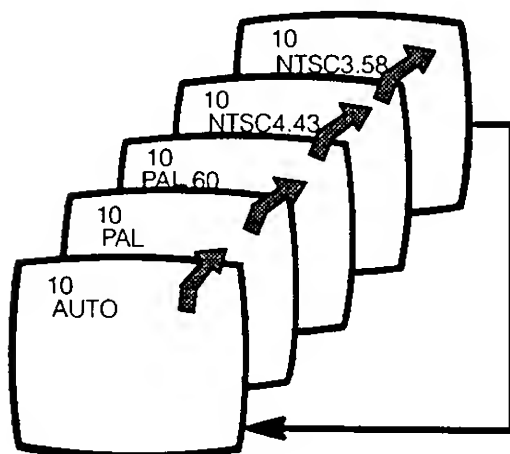
# General Operation

## ( 6 ) System Button

The System button is automatically set to the AUTO mode. If a clear picture cannot be obtained when receiving broadcast or AV signal, push this button repeatedly until the optimum picture is received. When the System button is pushed, you change the on - screen display as shown below :

In the AUTO mode, PAL and PAL 60 are automatically detected.

For NTSC 4.43 and NTSC 3.58, use the system button to select the required mode.



**Note :** NTSC 3.58 appears only in the AV mode.

## ( 7 ) Recall Button

Push the Recall button to activate the on - screen display.

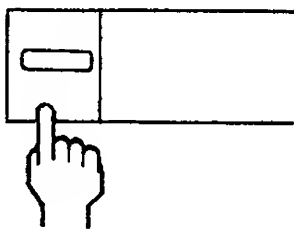
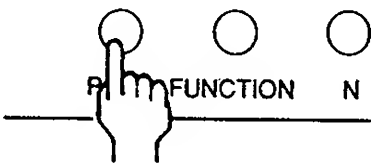
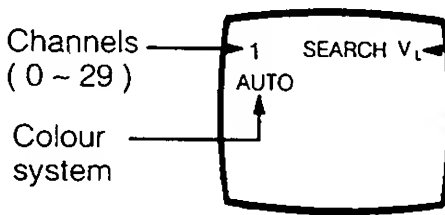
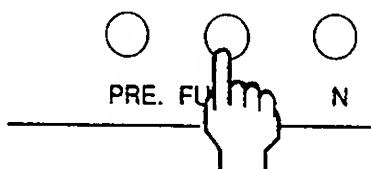
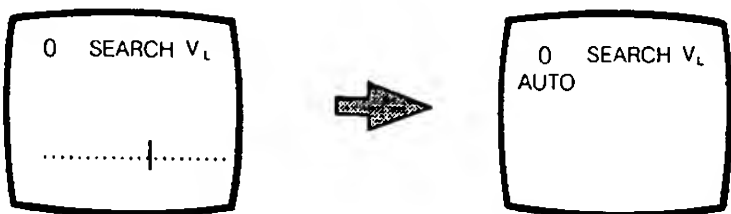
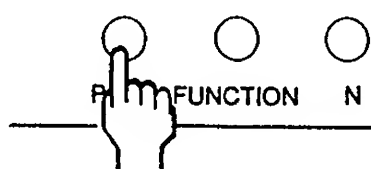
The current channel and Colour System will be displayed.

**Note:** In the AV mode, a blue colour screen appears if there is no AV signal, when the recall function is off.



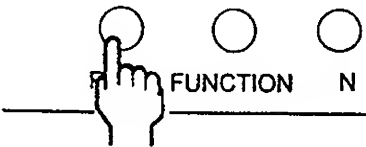
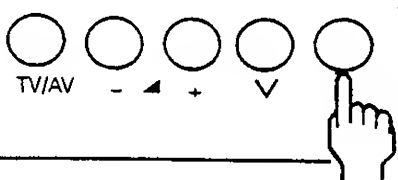
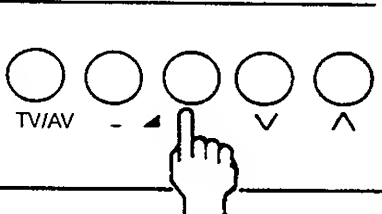
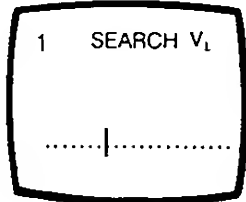

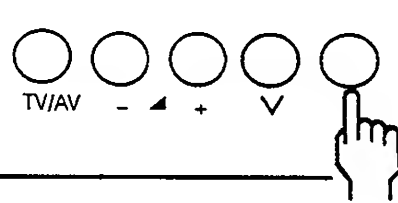
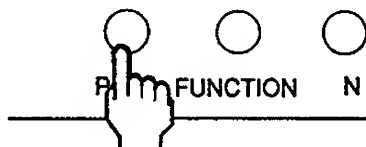
# How to Tune in Your TV Set (Automatic Search)

Follow these easy steps...

Step	Which Control to use	What to Do
1		Push the Power Switch to turn the TV set on.
2		<p>Push the " PRE . " ( PRESET ) button until the on - screen display appears as shown:</p>  <p>Channels ( 0 ~ 29 )</p> <p>Colour system</p> <p>Band Indicator</p> <p>V<sub>L</sub> : VHF Low Band V<sub>H</sub> : VHF High Band U : UHF Band</p> <p>Fig. 1</p>
3		<p>Push the " FUNCTION " button.</p>  <p>Searching</p> <p>Completion</p> <p>The best tuning position is automatically memorized.</p>
4		<p>Push the " PRE . " ( PRESET ) button twice to return the TV set to the normal operating mode.</p> <p>A maximum of 30 channels can be programmed.</p>

# How to Tune in Your TV Set (Manual Search)

Follow these easy steps...

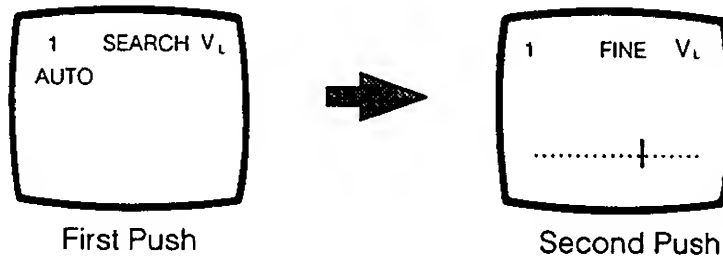
Step	Which Control to use	What to Do
1		Push the " PRE. " ( PRESET ) button until the on-screen display appears as shown in <b>Fig. 1</b> on page 6.
2		Push either the Channel Up " ^ " or Down " v " button to select the desired channel on which you want to tune the TV station of your choice.
3		<p>Push either the Level Adjustment Up " + " or Down " - " button, the TV station broadcasting on the next higher or lower frequency will be automatically tuned and memorized.</p> <div style="display: flex; align-items: center; justify-content: center;"> <div style="text-align: center;">  <p>Searching</p> </div> <div style="margin: 0 20px;">➔</div> <div style="text-align: center;">  <p>Completion</p> </div> </div> <p>If an undesired TV station is received, push the same button again until the desired TV station is tuned.</p>
4		<p>Repeat step 2 and 3 to tune all the available TV stations on the remaining channel.</p> <p>Ensure that a new channel is set ( step 2 ) before tuning the next station.</p>
5		Push the " PRE. " ( PRESET ) button twice to return the TV set to the normal operating mode.



## Fine Tuning Operation

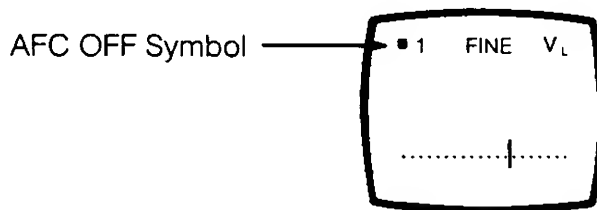
Under normal reception condition, this function is not used. However, in areas of poor reception or constant interference, a slight adjustment on the fine tuning can improve the picture and sound quality.

1. Push the " PRE. " button twice. The on – screen display will appear as shown:



2. Push either the Level Adjustment Up " + " or Down " – " buttons ( Volume Button ) continuously.

When the above fine tuning operation has been performed,  
The " ■ " symbol appears on the left of Channel Number.  
The AFC function is deactivated.

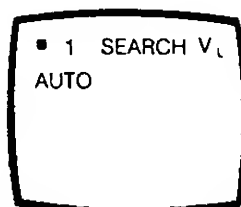


3. Push the " PRE. " button once to return the TV set to the normal operating mode.

## Fine Tuning Cancel Operation

If you want to reset this channel to the automatically tuned condition with the AFC activated, perform the following steps :

1. Push the " PRE. " button once.



2. Push either the Level Adjustment Up " + " or Down " – " button ( Volume Button ).
3. Push the " PRE. " button twice.

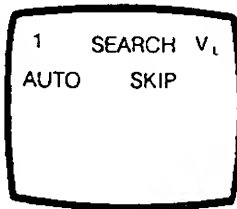
# How to Skip Unused Channels

## Channel Skip Operation

This function makes it possible to skip the channel on which no TV stations are received. This function is effective only when the Channel Up "▲" or Down "▼" button is pushed, either on the TV set or the remote control.

### How to set the Skip Operation

1. Push the "PRE." button.
2. Select the channel you want to skip.
3. Push the "SKIP" button.  
If more channels are to be skipped, repeat steps 2 and 3.



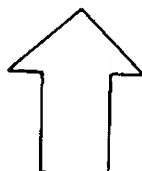
4. Push the "PRE." button twice after the skip operation is completed.

### How to cancel the Skip Operation

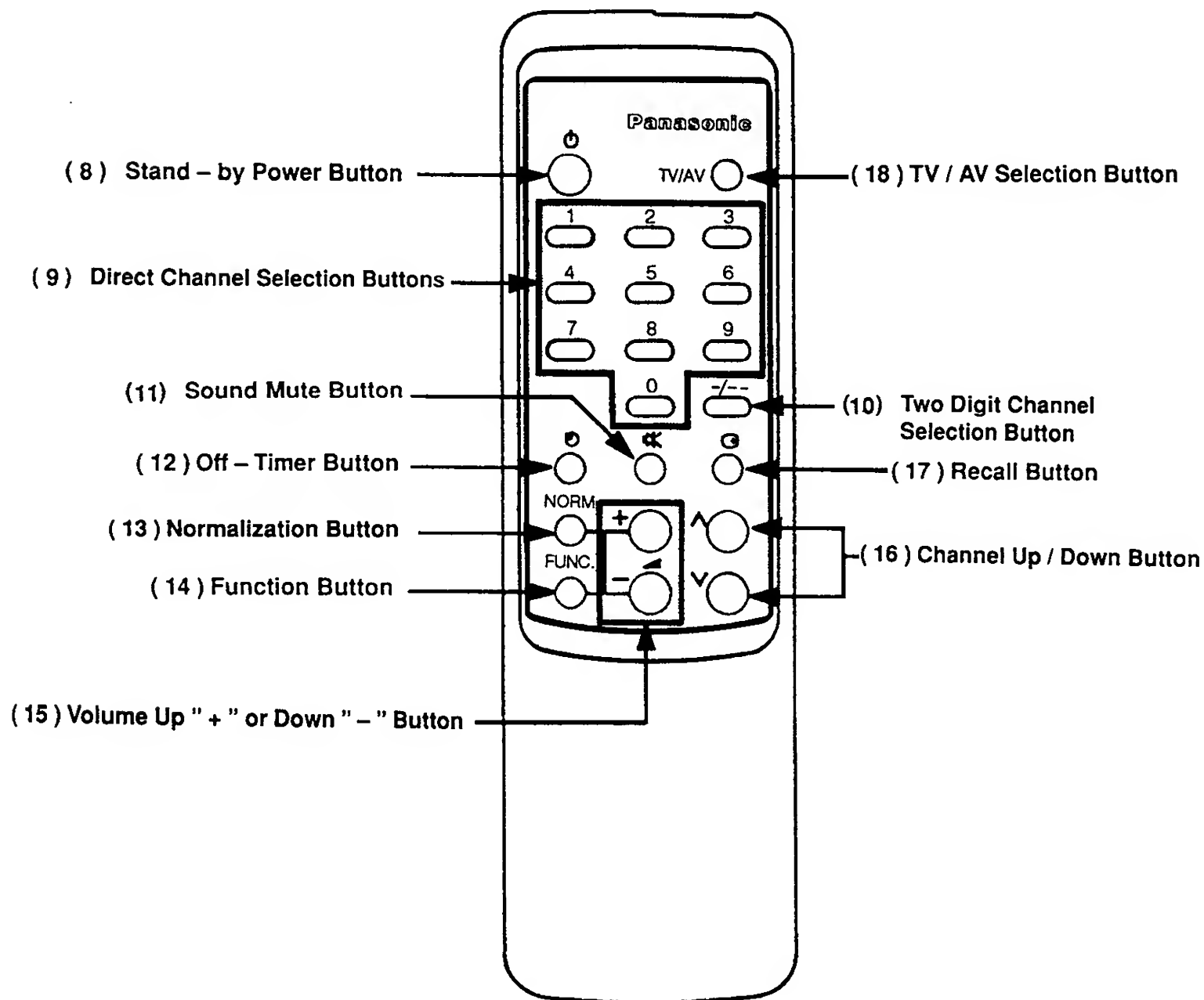
1. Push the "PRE." button.
2. Select the skipped channel using Channel Up "▲" or Down "▼" button.
3. Push the "SKIP" button.  
If more skipped channel are to be cancelled, repeat steps 2 and 3.
4. Push the "PRE." button twice after the cancel operation is completed.

# Remote Control

Receiver



**Note:** Operating Instructions on page **11-12**



# Remote Control Operation

( Refer to the diagram on Page 10 )

## ( 8 ) Stand – by Power Button

Push this button to turn the TV set off.

Push it again to turn the TV set on.  
You can also turn on the TV set by pushing the " Direct Channel Selection " buttons ( 0 ~ 9 ) or the Channel " Up " or " Down " button.

**Note:** Do not leave your TV set in stand-by mode for a long period of time.  
It is better to switch it off when you are away.

## ( 9 ) Direct Channel Selection Buttons

Push one of the 0 ~ 9 channel selection button to select a channel number from 0 ~ 9 directly.

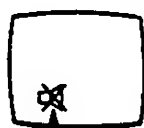
## (10) Two Digit Channel Selection Buttons

Use this button to select channel numbers from 10 ~ 29.  
e.g. Select Channel "12".

1. Push the " - / - - " button.
2. Push the " 1 " button.
3. Push the " 2 " button.

## (11) Sound Mute Button

Push this button to mute the volume.



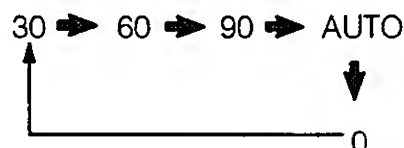
Red

You can restore the previous sound level by pushing the " Mute " button one more time or push the Volume Up or Down button.

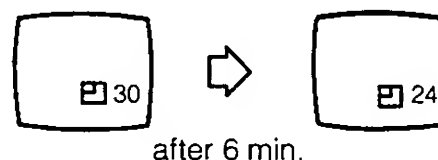
## (12) Off – Timer Button

The TV set can be preset to switch off after a fixed period of time.

Push the Off – Timer button will set the TV set for 30 minutes. Push again to set 60 minutes and so on. The sequence is as follows:



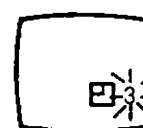
e.g. Setting 30 minutes off – timer.



On-screen display appears only when you push the " Recall " button.

This will give you the remaining time.

When the Off - Timer reaches its last 3 minutes, it appears on screen automatically and starts blinking as follows:



# Remote Control Operation

( Refer to the diagram on Page 10 )

e.g. Setting Off – Timer to AUTO mode.

If the set is not switched off when the TV station ends broadcasting, it will automatically go to stand-by condition after 5 minutes. This AUTO mode will not operate when the TV receiver is on AV mode.

## How to cancel the Off - Timer setting

1. Set the pre-set time condition to "0" mode by pushing the "Off – Timer" button.
2. Turning the TV set off, using the stand-by button on the remote control or the power button on the TV set.

**Note:** If the TV set is switched off when the Off-Timer setting has not been cancelled, it goes to stand-by mode when you switch it on again. In this case, press the stand-by power button on the remote control.

## (13) Normalization Button

Refer to page 4 for operating instructions under Normalization Button.

## (14) Function Button

Refer to page 4 for operating instructions under Function button.

## (15) Volume Up " + " or Down " – " Button

Push the Volume Up " + " button to increase the sound level.

Push the Volume Down " – " button to decrease the sound level.

These " + " and " – " buttons also function as level adjustment up / down in the Function mode.

## (16) Channel Up / Down Button

Push the Channel Up " ^ " button to select higher channel.

Push the Channel Down " v " button to select lower channel.

## (17) Recall Button

Refer to page 5 for operating instructions under Recall button.

## (18) TV / AV Selection Button

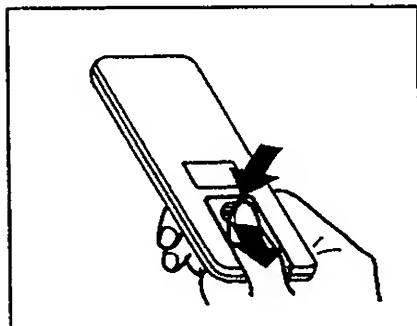
TV Mode : To receive regular TV channel signals.

AV Mode : The Audio / Video input terminal are activated.

# Battery Installation and Replacement for Remote Control Transmitter

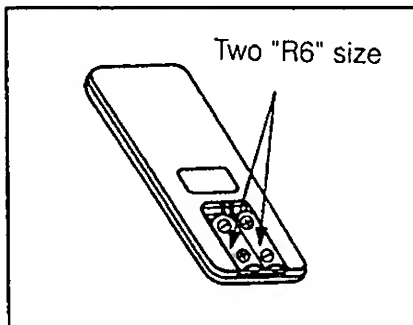
## Battery Installation

Batteries : Use two " R6 " size dry cells.



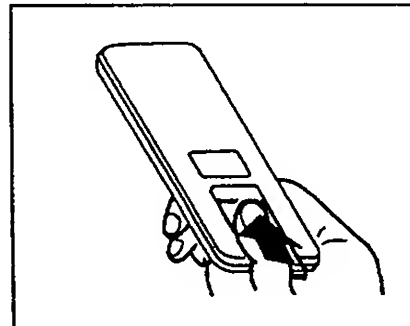
1. Open the cover.

( Press down and slide the cover out. )



2. Replace the batteries.

( Insert the batteries with the correct polarity as indicated by the (+) and (-) symbols. )

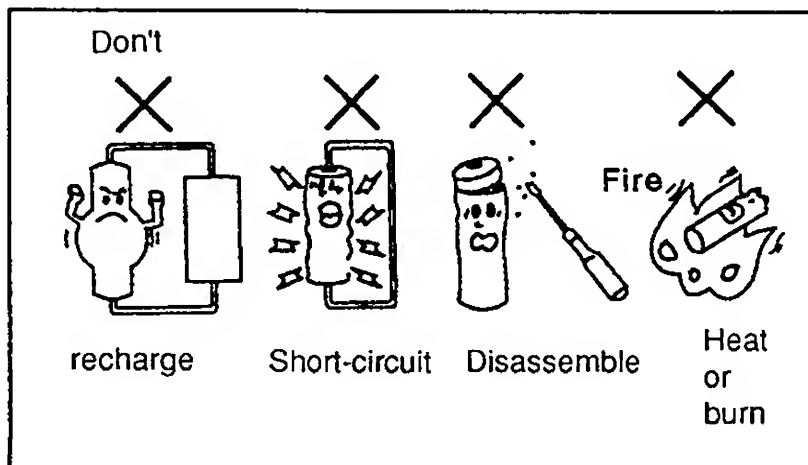
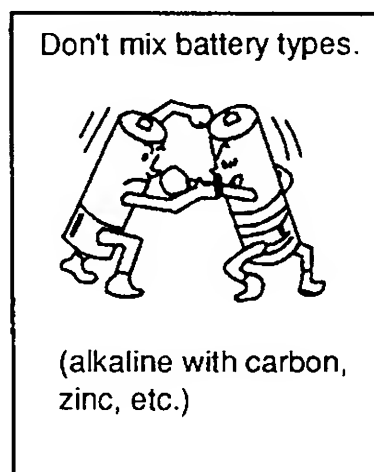
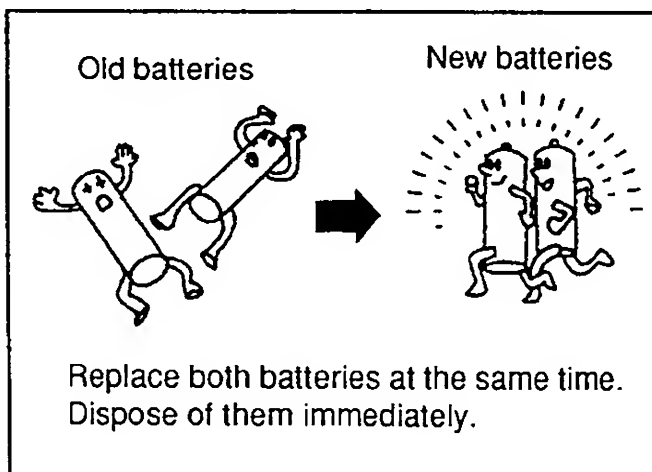


3. Replace the cover.

( A snap-lock holds the cover in place. )

## Battery Precautions

Incorrect use of batteries can cause electrolyte leakage which will corrode the remote control transmitter or cause the batteries to burst. The following precautions must be carefully observed.



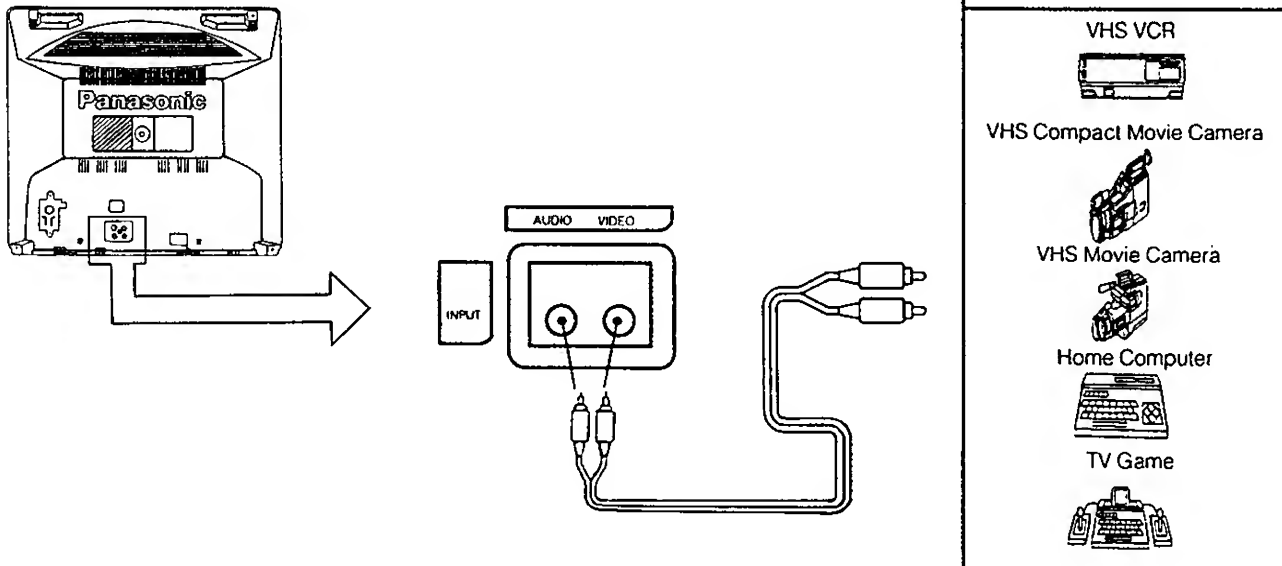
# Connections ( AV Input and TV Output Terminals )

## 1. Connection for AV input terminals.

Set the TV / AV selection button to the AV mode.

Connect the "AV" ( Audio / Video ) terminals and other equipment as follows:

( Rear )

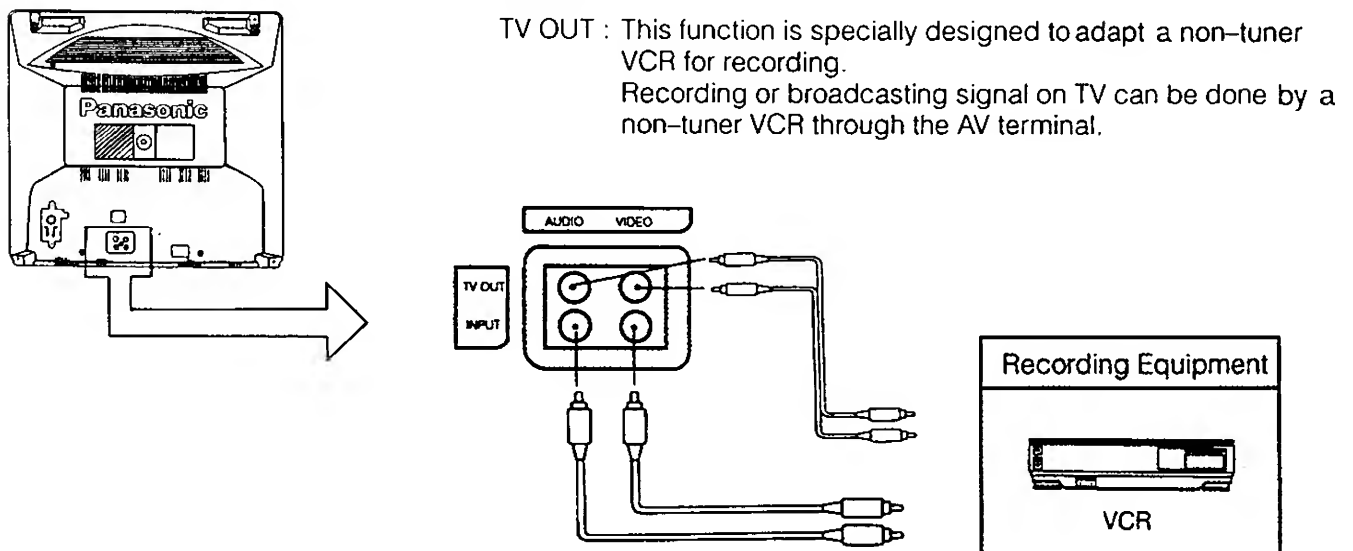


## 2. Connection for the TV output terminals.

Set the TV / AV selection button to the AV mode.

Connect the playback equipment or recording equipment as follows:

( Rear )










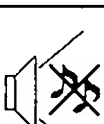

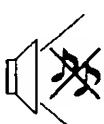









### Note :

TV OUT : This function is specially designed to adapt a non-tuner VCR for recording.  
Recording or broadcasting signal on TV can be done by a non-tuner VCR through the AV terminal.

**Note :** Recording of broadcasting signal only.

# Troubleshooting

Before you call for service, determine the symptoms and make a few simple checks as shown below.

Symptoms		Checks
Picture	Sound	
 Snowy Picture	 Noisy Sound	<ul style="list-style-type: none"> <li>• Aerial Location, direction</li> <li>• Connection</li> </ul>
 Multiple Image	 Normal Sound	<ul style="list-style-type: none"> <li>• Aerial Location, direction</li> <li>• Connection</li> </ul>
 Interference	 Noisy Sound	<ul style="list-style-type: none"> <li>• Electrical Appliances</li> <li>• Cars / Motorcycles</li> <li>• Fluorescent Lamps</li> </ul>
 Normal Picture	 No Sound	<ul style="list-style-type: none"> <li>• Volume ( Check whether the mute function has been activated on the Remote Control. )</li> </ul>
 No Picture	 No Sound	<ul style="list-style-type: none"> <li>• Not plugged into AC outlet</li> <li>• Not switched on</li> <li>• Contrast and Brightness / Volume Setting ( Check by pushing the Power Switch or Stand-by Button on the Remote Control. )</li> </ul>
 No Colour	 Normal Sound	<ul style="list-style-type: none"> <li>• Colour Control</li> </ul>
 Scrambled	 Normal or Weak Sound	<ul style="list-style-type: none"> <li>• Re-tune Channels</li> </ul>
 Colour Patches	 Normal Sound	<ul style="list-style-type: none"> <li>• Magnetic interference from unshielded equipment.</li> <li>• Receiver moved while "ON".</li> </ul>
  No Colour      H-Line	 Noisy Sound	<ul style="list-style-type: none"> <li>• System Button</li> </ul>



# Specifications

<b>Power Source:</b>	AC 230 V, 50Hz
<b>Power Consumption:</b>	95 W 6 W (Stand-by Condition)
<b>Receiving Systems:</b>	PAL (B , G) PAL 60 (Special VTR playback only) M-NTSC (Special VTR playback only) AV-NTSC (VTR playback only)
<b>Receiving Channels:</b>	VHF 1 - 11 UHF 21 - 69
<b>Picture Tube:</b>	51 cm (21 inches) Measured diagonally, 90° deflection
<b>Audio Output:</b>	3 W (Max.)
<b>Dimensions (W x D x H):</b>	510 x 484 x 475 mm
<b>Mass (Weight):</b>	22.40 Kg (Net)